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A-F Letter Grade Accountability System Technical Manual

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Introduction

The information in this guide is designed for educators, parents, and other interested stakeholders who would like to understand the Arizona A-F Letter Grade system. The Arizona Department of Education's ultimate goal is for all students to receive an education that prepares them for the opportunities and demands of college, the workplace, and life beyond high school. As a state, we are also committed to holding schools accountable to this goal using a fair accountability model that differentiates among the performance of our schools and districts.

The state accountability system in Arizona is predicated on a continuous improvement model, with differentiated state supports and interventions designed to drive student achievement toward the goal of college and career-readiness. Through our A-F Letter Grade system, Arizona makes annual accountability determinations for all schools and districts (called Local Education Agencies, or LEAs) based on student academic status and growth. We are aligning our state standards and our state assessment to the knowledge and skills necessary to be college- and career-ready, and successful beyond high school. With this ubiquitous focus, we strove to design a comprehensive accountability system for schools and districts.

Keeping with the state's emphasis on continuous improvement, our state school improvement program is a tiered system of state intervention and oversight depending on the Letter Grade a school earns. The ADE provides schools and districts support where needed and recognition where warranted. Our approach provides our top schools with autonomy to advance student achievement through innovative approaches and proven methods of school improvement.

Historical Context

The passage of Proposition 301 by Arizona voters in November 2001 was the first step in Arizona holding schools accountable for the academic performance of their students. The Arizona Department of Education developed an accountability system to measure school performance based on student achievement on Arizona's Instrument to Measure Standards (AIMS), mathematics and reading sections. This system was dubbed AZ LEARNS (now referred to as the AZLEARNS- Legacy) and required that all public schools in Arizona receive an achievement profile under the state accountability system.

Over the past decade, this system has not been without critics. AZ LEARNS-Legacy did not provide meaningful or understandable descriptions of school performance for parents or educators. Primarily, the nomenclature used in the AZ LEARNS labeling system was misleading at worst and confusing at best because school labels failed to provide parents with an objective metric of their school's performance, did not clearly distinguished between categories, and parents could not compare their school to a neighboring school. Under AZLEARNS-Legacy, the "Performing" label is actually the 2nd lowest ranking out of 5 (i.e., Excelling, Highly Performing, Performing Plus, Performing, and Underperforming). The result? Over 90% of Arizona's schools receive a "performing" or better label. Further, as the science of school and district accountability progressed, so did our understanding of the importance of measuring and holding schools accountable to student growth. Educators statewide had long been asking for a system that would recognize the academic *growth* of students over time rather than the more narrow focus provided by snapshots of achievement at one point in time.

The A-F Letter Grade System was passed by the Arizona Legislature in 2010 and adopted in June, 2011 by the State Board of Education[1]. With its enactment, Arizona now has a state accountability system that provides an understandable determination of school and district performance. The A-F Letter Grade System provides a consistent yardstick from year to year to track a school's or LEA's progress over time provides data to inform instruction and drive academic interventions in a way that the AZ LEARNS-Legacy system simply did not do. The new A-F Letter Grade Accountability Systems is distinct for several reasons.

1. The A-F Letter Grade System was designed to place equal value on current year achievement and the academic growth, including the growth of all students while placing a laser-like focus on schools' lowest achieving students. It emphasizes

[1] A.R.S. §15-241 requires that the Department shall determine the criteria for each school and school district classification using a research based methodology, which is defined as the systematic and objective application of statistical and quantitative research principles to determine a standard measurement of acceptable academic progress for each school and school district.

longitudinal student-level growth as a primary indicator of school achievement. Including longitudinal student growth in an accountability system is particularly important because it recognizes the degree to which lowest achieving students gain academic ground.

2. Second, school districts and charter holders (LEAs) are also being held accountable under the new system and will receive annual letter grades using the same calculation as individual schools. In his former role as State Senator and sponsor of the original A-F Letter Grade legislation, Arizona's Superintendent of Public Instruction Huppenthal felt strongly that districts should be recognized for accomplishments in building their schools' capacity to provide high quality instruction to all students. He was also determined to hold LEAs accountable when they failed to demonstrate success. Thus, in its implemented form, the A-F Letter Grade System also acknowledges the responsibility that LEAs have in ensuring the academic success of the students within the schools they oversee. This is why the A-F Letter Grade System is applied to LEAs as well as to all schools.

A.R.S. §15-241 specifies that all schools[2] and LEAs be held accountable to the A-F Letter Grade system starting in the 2012-2013 school year.[3] Thus, in the 2010-2011 school year, Letter Grades were computed for all schools and districts, but state accountability was based on AZ LEARNS-Legacy profiles. Arizona schools received both designations from the State for the 2010-2011 school year.

[2] The timing of the final board approval of the A-F Letter Grade calculation method, at the end of June, 2011, did not allow for the development of parallel models for alternative schools, extremely small schools, and K-2 schools in the first year, as required by A.R.S. §15-241. The purpose of these models is to allow for the unique characteristics inherent in these schools. Technical changes to models for these school types are being developed in collaboration with Arizona's Accountability Advisory Group. The recommended models and technical changes will be presented to the Arizona State Board of Education for consideration and final adoption by Spring 2012.

[3] Legislation is currently progressing through the Arizona Legislature to change this to the 2011-2012 school year.

Table 1. Distribution of Schools Receiving AZ LEARNS-Legacy Labels and A-F Letter Grades in the 2010-2011 School Year

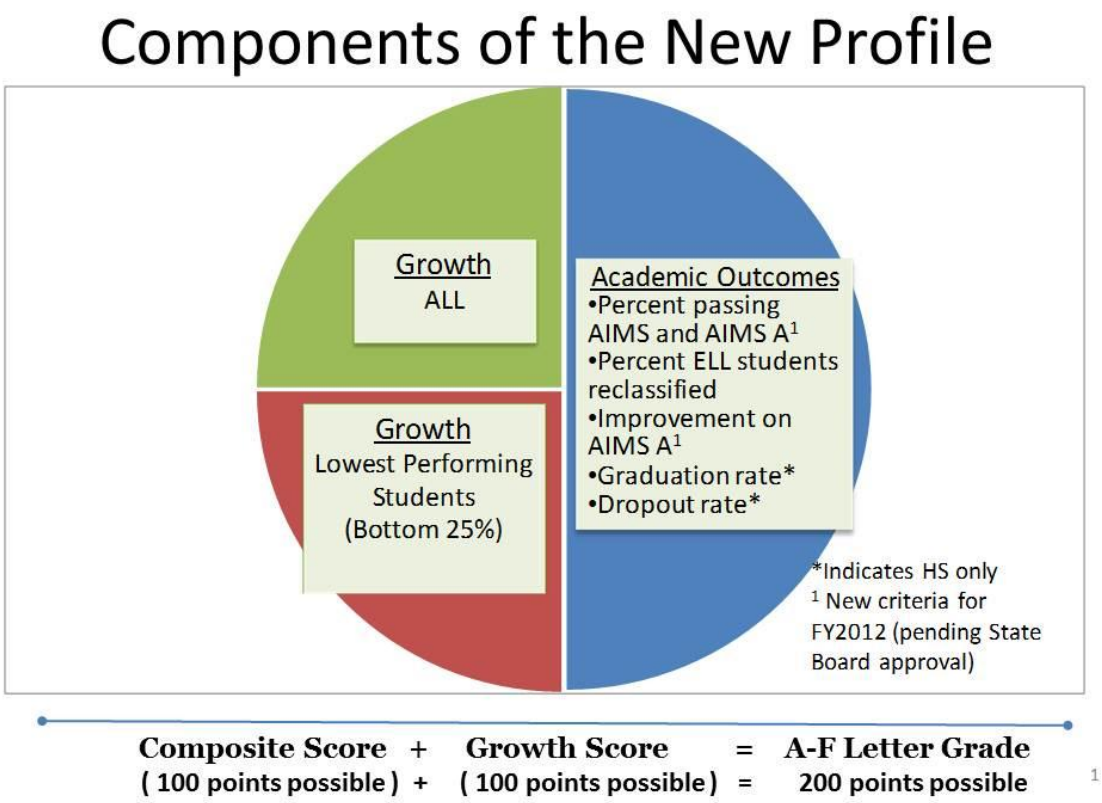
	A	B	C	D	Total
Excelling	202	88	1	0	**291**
Highly Performing	65	157	21	0	**243**
Performing Plus	28	278	356	45	**707**
Performing	0	13	108	115	**236**
Underperforming	0	0	1	23	**24**
Total	**295**	**536**	**487**	**183**	**1501**

With the passage of the Federal No Child Left Behind Act (NCLB) in 2001, schools in Arizona eligible to receive Title I part A federal funds were held accountable to the state expectations under AZ LEARNS-Legacy and to meet federal requirements under NCLB. Those schools' ability to meet Annual Measurable Objectives toward the goal of academic proficiency for all children by the 2013-2014 academic year resulted in the Annual Yearly Progress (AYP) determinations. An AYP determination was made for all schools in Arizona but only Title I part A funded schools faced consequences for their ability to make AYP. See http://www.azed.gov/research-evaluation/files/2011/11/aypqg.pdf for more information about NCLB.

Overview of the A-F Letter Grade Accountability System

The formula used to calculate the Letter Grade for each[4] school is based on a point system that weights equally students' academic outcomes and academic growth. The final score has 200 points possible – 100 for academic outcomes and 100 for academic growth. A letter grade is then assigned to each LEA and school based on the number of points earned.

Figure 1: Components of the New A-F Letter Grade Profile



The **academic achievement** component, the Composite Score, of the Letter Grade System holds schools accountable for student proficiency on the AIMS assessment. Proficiency is determined by calculating the percentage of students proficient on the state standards in a given grade in reading and mathematics, determined as scoring "meets" or "exceeds" on the grade-level AIMS assessment. The percentage of students proficient on AIMS is averaged

[4] A.R.S. 15-241 specifies that there is to be a parallel model for schools that are designated as 1) extremely small, 2) alternative schools, or 3) K-2 schools. For these schools, the ADE is developing models that fit the unique needs of these schools, while adhering to the basic tenants of the A-F model. An addendum to this manual will be added once those models are approved by the Arizona State Board of Education.

across each subject/grade combination for a school-wide average and converted to points, between 0 and 100 points.

In addition to the AIMS test, the achievement composite includes other measures of academic achievement. The composite score accounts for the percentage of English Language Learners (ELLs) who are reclassified as fully English proficient on the Arizona English Language Learner Assessment (AZELLA). If a school reclassifies 30% or more ELL students as proficient in English, they receive 3 additional points. High schools are also held accountable for meeting stringent criteria for graduation and dropout rates. High schools can earn 3 points for meeting graduation rate targets and 3 points for meeting dropout rate targets.

The purpose of the **growth component** is to acknowledge the academic growth of students within a school or district, even if a student has not yet reached grade-level proficiency. Arizona uses a student-level growth measure – **Student Growth Percentiles** (SGP) – that describe each student's academic gains relative to other students who began at the same point academically. Including a longitudinal student growth component into an accountability system is particularly important because it recognizes efforts of the lowest achieving students to "gain ground" academically from one year to the next.

The **total score** is calculated by adding a school's composite score and its overall growth score together for a possible total of between 0 and 200 points and compared to a grade classification scale, illustrated in Table 2 below, to determine the final Letter Grade. Table 2 shows the range of points for each Letter Grade level, and a description of each Letter Grade as described in A.R.S. 15-241. Under the state statute, a letter grade of 'F' is designated if a school or district receives a letter grade of 'D' for three consecutive years.

Table 2. A-F Letter Grades, Total Scores, and Descriptions

Rating	Total Score	Description[1]
A	140-200	LEA/school demonstrates an **excellent** level of performance
B	120-139	LEA/school demonstrates an **above average** level of performance
C	100-119	LEA/school demonstrates an **average** level of performance
D	0-99	LEA/school demonstrates a **below average** level of performance
F		Those schools earning a "D" for three consecutive years

[1] Pursuant to A.R.S. 15-241

The method for determining Letter Grades for schools and LEAs was developed in accordance with A.R.S. 15-241, which mandates that the Department shall determine the achievement profile (Letter Grade) for schools and LEAs using a research based methodology. This methodology is subject to final adoption by the state board of education. According to state law, the methodology must include the performance of pupils at all

achievement levels, account for pupil mobility, and account for the distribution of pupil achievement at each school. Further, the methodology must include the elements outlined in Table 3 (also illustrated in Figure 1), and consist of two equally weighted (50% each) measures of academic gain for 1) **All pupils** enrolled at the school or school district, and 2) the 25 percent of pupils with the lowest academic performance enrolled at the school or LEA.

Table 3: Elements Required in the School and LEA Achievement Profiles for Schools Serving Grades K-8 and Grades 9-12

A-F Component	**Elements**	
	Grades K-8	Grades 9-12
Growth Score	Measure of Academic Progress	Measure of Academic Progress
Composite Score	Percentage passing the AIMS test	Percentage passing the AIMS test
	Results of the ELL test, AZELLA	Results of the ELL test, AZELLA
		Annual dropout rate
		Annual 5-year cohort graduation rate

"Research Based Methodology"
The systematic and objective application of statistical and quantitative research principles to determine a standard measurement of acceptable academic progress for each school and school district

Components of the Model

Achievement Composite (100 possible points)

The academic achievement component of the Letter Grade System holds schools accountable for students' achievement in the current year on up to 4 measures. Table 4 shows the measures and the corresponding point values in the A-F Letter Grade determinations. Each measure is further defined in the following sections.

Table 4: Academic Achievement Measures, Criteria, and Corresponding Grades and Point Values in the A-F Letter Grade Determinations

Measure	Grades Served	Criteria	Point Range
Proficiency on AIMS test	K-12	Percent of pupils who pass	0-100
Results of the ELL test AZELLA	K-12	30% of ELL pupils reclassified proficient	0 or 3
Annual dropout rate	9-12	Meet Dropout Target	0 or 3
Annual graduation rate	9-12	Meet Graduation Rate Target	0 or 3

Proficiency on the AIMS test

Proficiency is determined by calculating the percentage of students proficient on the state standards in a given grade in reading and mathematics, determined as scoring "meets" or "exceeds" on the grade-level AIMS assessment. The percentage of students proficient on AIMS is averaged across each subject and grade to derive a school-wide average. To convert this school wide average percentage to points, the percentage is divided by 100, and rounded to the nearest whole number. This results in a score between 0 and 100 points.

Example

Percent Passing- READING

Grade	Number of Students	Number Passing	Percent Passing
3	71	60	84.51%
4	91	83	91.21%
5	104	91	87.50%
School wide	**266**	**234**	**87.97%**

Percent Passing- MATHEMATICS

Grade	Number of Students	Number Passing	Percent Passing
3	71	59	83.10%
4	91	76	83.52%
5	104	82	78.85%
School wide	**266**	**217**	**81.58%**

School wide Average Percent Passing (Reading)	87.97%
School wide Average Percent Passing (Mathematics)	81.58%
Overall Average Percent Passing (Reading and Mathematics Combined)	84.78%
Total Points for Percent Passing	**85**

Elementary Schools

Students in grades 3-8 who took the AIMS Reading and Mathematics tests were included. The percent of those students who passed the AIMS test in the current year were identified separately for Reading and Mathematics. For each subject, across all grades, the number of students passing was divided by the total number of students who took the subject test. The percent passing in Reading and Mathematics were then averaged. The final average percent across all grades and both subjects was converted into points (0-100 points possible).

$$\textbf{Percent Passing in Current Year} = \frac{\textbf{\# Students Passing AIMS, current year}}{\textbf{\# Students Tested, current year}}$$

High Schools

Students in grade 10 who took the AIMS Reading and Mathematics tests were included. The percent of those students who passed the AIMS test were identified separately for Reading and Mathematics. Because students are permitted to re-take the "grade 10" test during their grade 11 or grade 12, up to 2 times per year, the high school calculation also includes the highest scores attained in each subject by students between grades 10 and 12. For each subject, the number of students passing was divided by the total number of students who took the subject test (students who retook the test were only counted once). The percent passing in Reading and Mathematics were then averaged. The final average percent across all grades and both subjects was converted into points (0-100 points possible).

$$\textbf{Percent Passing in Current Year} = \frac{\textbf{\# Students Passing AIMS, current year}}{\textbf{\# Students Tested, current year}}$$

Results of the English Language Learners Test

The achievement composite score also accounts for the percentage of English Language Learners (ELL) who are reclassified as fully English proficient on the Arizona English Language Learner Assessment (AZELLA) during the academic year[5]. Elementary and high schools **with at least 16 ELL students or more** can earn 3 points, above and beyond the possible 100 from the AIMS percent passing, for **reclassifying 30% or more** students as proficient in English.

For this calculation, the number of students scoring proficient was divided by the total number of students who took the AZELLA test. The percent for the bonus points is those who moved from below the proficient score to above the proficient score. To be included in this calculation, students must meet several criteria:

1. Be identified as ELL on the AZELLA at any point, at least within the prior 2 academic years
2. Be continuously in the ELL program within the school for at least 150 calendar days

$$\textbf{Percent Moving to Proficient in Current Year} = \frac{\textbf{\# Students scoring Proficient in the current year}}{\textbf{\# Students Tested on AZELLA in the current year}}$$

Note

Schools are held accountable for the most currently available data (typically the reclassification rate for the current year).

For 2011 only, schools were held accountable to ELL data from either the 2009-2010 OR 2010-2011 school year. That is, if a school reclassified 30% of their students in 2010 OR 2011, the school received the ELL points. But, if the schools' reclassification rate was less than 30% in BOTH years, the school did not receive ELL points.

Beginning in 2012, schools and districts will be held accountable for current year ELL data for A-F letter grade calculations.

[5] Arizona identifies ELL students by use of the Home Language Survey also known as the Primary Home Language Other Than English (PHLOTE). Once a response on the PHLOTE identifies a student's home language as any other than English, the student is then administered the AZELLA. If the student scores below proficient on the AZELLA, the student is classified as an ELL. ELL students are tested on the AZELLA the first time the student enrolls and completes the PHLOTE and every spring until the student is identified as English proficient and monitored by taking the AZELLA during the spring administration for two years after testing "proficient". For more information on the AZELLA and Arizona's ELL programs, please see http://www.azed.gov/english-language-learners/.

Annual 5-year Cohort Graduation Rate

High schools are also held accountable for meeting stringent criteria for graduation rates. The **Graduation Rate** is a longitudinal measure of how many students graduate from high school within 5 years of first entering grade 9. High schools can earn 3 points, above and beyond the possible 100 from the AIMS percent passing by meeting one of three criteria:

Graduation Rates		Criteria to meet the Target
3-Yr Average		≥ 90%
Current Year	≥ 74%	1 percentage point Increase
	< 74%	1 percentage point Increase

The graduation rate formulas used are:

$$\textbf{Single Year Graduation Rate} = \frac{\textbf{\# in cohort who graduated within 5 years}}{\textbf{Original cohort + Transfers in - Transfers out}}$$

$$\textbf{Three-year Average Graduation Rate} = \frac{\textbf{2008 + 2009 + 2010 five-year grad rates}}{\begin{array}{l}\textbf{(2008 Original cohort + Transfers in - Transfers out)+}\\ \textbf{(2009 Original cohort + Transfers in - Transfers out)+}\\ \textbf{(2010 Original cohort + Transfers in - Transfers out)}\end{array}}$$

Calculating Bonus Points for Dropout Rate

The **dropout rate** is an annual measure of how many students drop out of a school during a twelve-month reporting period. High schools and LEAs can earn 3 points, above and beyond the possible 100 from the AIMS percent passing by meeting one of three criteria:

Dropout Rates		Criteria to meet the Target
3-Yr Average		≤ 6%
Current Year	≤ 9%	1 Percentage Point Decrease
	> 9%	2 Percentage Point Decrease

The dropout rate formulas are:

$$\text{One-year Dropout Rate} = \frac{\text{\# students who dropped out}}{\text{\# students enrolled during the school year}}$$

$$\text{Three-year Dropout Rate} = \frac{\text{Total \# dropouts for 2009, 2010, and 2011}}{\text{Total \# of students enrolled in 2009, 2010, and 2011}}$$

In 2011, the Baseline Year was 2006 or the school's first year of operation, whichever was the latest. A school's annual average decrease is calculated by subtracting the baseline year's rate from the current year's rate and dividing by the number of years spanned by the calculation. A school will not be evaluated on dropout rate if it has less than 15 students in the group.

$$\text{Average Annual Decrease} = \frac{\text{Baseline one-year rate - Current one-year rate}}{\text{Number of years in span}}$$

Calculating Total Composite Points

The Composite points comprise half of the total points in a school or LEA's Letter Grade calculation. The composite points are calculated by adding the points earned for each element on the achievement side.

	Elementary/ Middle Schools	High Schools
Percent Passing AIMS	0 - 100	0 - 100
ELL Target	0 or 3	0 or 3
Graduation Rate Target	-	0 or 3
Dropout Rate Target	-	0 or 3
TOTAL	**103**	**109**

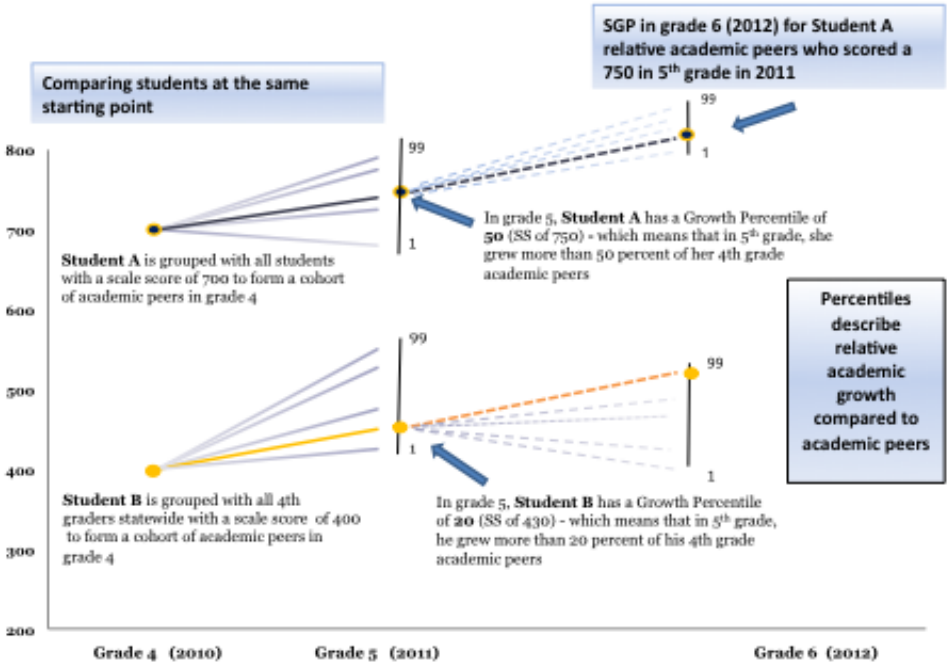
Growth Score (100 possible points)

Overview

The purpose of the growth component is to acknowledge the academic growth of students within a school or district, even if a student has not yet reached grade-level proficiency. In June, 2011, the Arizona State Board of Education approved for use in the A-F Letter Grades a student-level growth measure – **Student Growth Percentiles** (SGP) – that describe each student's academic gains relative to other relative to other students who have, in the past, "walked the same achievement path". Including a longitudinal student growth component into an accountability system is particularly important because it recognizes the degree to which the lowest achieving students strive to "gain ground" academically from one year to the next.

Conceptually, a **student growth percentile** represents how "typical" a student's academic growth is by examining their achievement relative to their academic peers—those students with comparable prior achievement. Simply put, for every student in the state, this measure selects students in the same grade level, with the same AIMS scores over a number of years to determine a "**peer group**". Then, for each student, the current year AIMS score is compared to the current year scores of the other students in his/her peer group. If the student's current year score exceeded the scores of most of their academic peers, the student has done well, comparatively. If the student's current year score was less than the scores of their academic peers, the student has not done well, comparatively. Figure XX helps to illustrate the SGP. For technical details on the calculation of the SGP, please see Appendix A.

Figure 2: Illustration of the Peer Groups and SGP for 2 sample students



For each "eligible" student in the state, an SGP is calculated separately based on AIMS mathematics and reading. Students must have at minimum 2 consecutive years of AIMS test data to be included in the SGP calculation. To establish more precise peer groups, up to five consecutive most recent years of AIMS test data are included in the SGP calculation.

The SGPs of eligible students are aggregated to the school level, or to the district level for accountability in the state's A-F Letter Grade System. First, the **median** growth for all students within a school is calculated, which is the average growth of students within a school. Next, the median SGP was calculated for the students whose scores on AIMS (accounting for grade level) in the previous year put them among the bottom 25% of students in their school. Using this metric, schools and LEAs are held responsible for the growth of the students starting the school year at the bottom of their class. ADE then averages these two medians to calculate the school-wide or district-wide total growth score, and uses that number to award growth points, up to 100 possible points.

Calculating Median Growth Percentiles & Growth Points

For each school and LEA, SGPs were used to derive the average growth for all students and the bottom 25 percent of students. Because the SGP is a ranked measure (more precisely, a probability distribution), the statistically appropriate measure of the average is the median. The median best describes the center of the distribution.

The steps to calculate a median growth percentile for all students within a given school is as follows:

1. For each grade, a median growth percentile was calculated from the distribution of SGPs of all students. This is done separately by subject.
2. The median SGP for Reading and Mathematics for each grade were averaged.
3. The school-wide median for Reading and for Mathematics were averaged for an "All Students" median between 1 and 99.

For example, an elementary school serving grades 3-8:

Grade	Mathematics	Reading
3	47	37
4	31	51
5	56	67
6	61	41
7	42	38
8	48	25
	47.5	43.2
Median	45.3	43.2
Median Growth – 'All Students'	45	

Identifying the Bottom Quartile Students

Calculating the bottom quartile of students is based upon achievement on the reading and mathematics sections of the AIMS test from the prior year. Student growth percentiles are not used to identify the bottom quartile, but rather, once the bottom quartile of students is identified, the median growth percentile for this group is calculated for a school or district for use in their Letter Grade formula.

For all students in grades 4-8, the first step is to calculate the difference between each student's prior year AIMS scale score and prior year *grade level* AIMS passing cut score (cut score for *Meets*) in Mathematics and Reading separately.

***Difference* = (Prior Year Scale Score – Prior Year Grade-Level "Pass" Cut Score)**

The ADE developed adjusted criteria for identifying the bottom 25% based on prior year scores for students in grade 3 and grade 10 because the AIMS test is not administered in grade 2 or grade 9. The Stanford 10 norm-referenced test is administered to students in Arizona in grade 2. To determine the bottom 25% for grade 3, Stanford 10 reading and mathematics scale scores from grade 2 are rank ordered from low to high and separated

into quartiles. For grade 10 students, their grade 8 AIMS scores are used as the "prior year" data in the same manner as described for grades 4-8 above to find the bottom quartile.

Difference scores were calculated using the following cut scores for reading and mathematics:

Grade	Reading Cut Score	Mathematics Cut Score
4	431	
5	450	
6	468	
7	478	
8	489	
10*	499	

***** AIMS cut scores in grade 8 used to determined *Difference* in grade 10

Next, a mathematical transformation was used to remove negative numbers and account for the different passing scores in each grade, so that all students could be compared in a school, regardless of grade level. This transformation does not alter the essence of the data because each data point receives the same treatment and are reversible when the data need to be brought back to their original structure.

In this transformation, each student's ***Difference*** score is weighted by the prior year AIMS "performance level". There are four performance levels for each grade, with vertically scaled cut scores. In this analysis, a numeric value between 1 and 4 is assigned to the grade-appropriate performance level, as follows:

1 = Falls Far Below
2 = Approaches
3 = Meets
4 = Exceeds

Finally, the numeric performance level is multiplied by 1,000, which adjusts for negative values from the *Difference* score but keeps the students in the same ordinal ranking. This step is calculated separately for high schools.

Adjusted Difference = (Difference + [AIMS performance level x 1,000])

For each school, across all grades served, students' ***Adjusted Difference*** scores are rank ordered from low to high by subject and separated into quartiles. The lowest quartile of students in reading and mathematics represent a school's lowest performing students – the bottom 25%. The growth percentiles of each student in this group are then used to determine the median growth score in reading and mathematics within each school.

Calculating Growth Points

The determination of growth points for a school or district was based 50% on the SGP of all students and 50% on the SGP of the bottom quartile students. The *Overall Growth Score* was the average of the **Median SGP** of 'All Students' and the Bottom 25%. This median is converted to point between 1 and 99.

	Points Possible
Median growth percentile of all students in Reading and Mathematics combined ("All Student" Rank)	**1 to 100**
Median growth percentile of bottom quartile of students in Reading and Mathematics combined (Bottom 25%)	**1 to 100**
The average median of All Students and the Bottom 25% represents the Overall Growth Score (1-100 points)	

Total Score- Calculating a Letter Grade

The total score for a school or LEA's was calculated by summing the composite score and the growth score together for a possible point total between 0 and 200 points. The total points earned by a school or LEA are compared to the classification scale shown in Table 5 to determine the Letter Grade.

Table 5: Range of Possible Points used to Determine Final Letter Grades

Letter Grade[1]	Total Points
A	140 – 200
B	120 - 139
C	100 - 119
D	0 - 99

[1] A letter grade of 'F' is assigned to a school or LEA receiving a letter grade of 'D' for three consecutive years

Student Data Selection Criteria

The following provides details and descriptions of the selection criteria used to identify the students who were included in the calculation of a school or district letter grade.

- Full Academic Year (FAY) students – Students were included in the composite and growth calculations of the A-F model for a school or LEA if they were enrolled within the first ten days of the school's calendar year and continuously enrolled up until the date of testing. (Note that all students were included in the calculation of the SGP, but for schools and LEAs, only those students who met the FAY criterion were included in their median SGP calculations)
- For the SGP, students must have had, at minimum, a test score for the two most recent school years (i.e., FY10 and FY11) to be included in the SGP calculation. Students with test scores for 2011 only were included in the composite portion of the model, but were *not* included in the student growth calculations. Beginning with the 2011-2012 Letter Grade calculation, FAY status will not be used as criteria for exclusion from the statewide SGP calculation.

- English Language Learner (ELL) students – Any student identified and categorized as ELL, were non-mobile (i.e. FAY) and had a valid test score are included in the Composite and growth portions of the model.

- Special Education (SPED) Students - SPED students who did not take AIMS-A, tested without modifications and students whose IEP allowed for testing were also included.

    - Pending State Board of Education Approval of the final calculation, beginning in the 2012-2013 school year, students with severe disabilities who take Arizona's alternate assessment (the AIMS-A) will be included in the A-F Letter Grade score.

A-F APPEALS PROCESS

Under state law, schools and districts are not being held accountable to the A-F Letter Grade Accountability system for school improvement purposes until the 2012-13 academic year. As a result, the ADE will not establish a substantive appeals process for A-F letter grades until that time and will not accept or consider any appeal of a preliminary or final A-F letter grade from a school or LEA in any form (electronic or otherwise) for the 2011-2012 academic year.

Because statistical appeals are no longer available, schools and LEAs that wish to address any data issues and correct their data may do so during the data correction window in order to confirm data accuracy. This Data Correction window has replaced the statistical appeal process. Note that LEAs are solely responsible for verifying information for their schools. Schools and LEAs will be notified in advance when the data correction window is available when ADE distributes its Accountability Timeline memo in the spring of 2012.

If an LEA does not change the information for its schools through the correction process, the ADE rightly assumes that the schools on file and all data available are correct as listed.

A-F Letter Grades for Alternative Schools

Alternative schools are defined as schools that meet the Board-approved definition as schools whose sole and clearly-stated mission is to serve specific populations of at-risk students. Alternative school status is granted by application to the ADE. *A.R.S. §15-241* makes an allowance for a "parallel" evaluation method for alternative schools. The alternative schools list for 2011 can be found here: http://www.azed.gov/research-evaluation/az-learns/. As there is no LEA designation of alternative status, an LEA will not be designated as alternative. The designation only applies at the school level for individual schools.

Definition of an Alternative School

The following is the definition of an alternative school as approved by the Board of Education in 2002.

1. A school operated by a school district must have adopted a mission statement that clearly identifies its purpose and intent to serve a specific student population (please see criterion three) that will benefit from an alternative school setting. A charter school must be expressly chartered to serve a specific student population that will benefit from an alternative school setting.
2. The educational program and related student services of the school must match the mission or charter of the school.
3. The school must intend to serve students exclusively in one or more of the following categories:
    - Students with behavioral issues (documented history of disruptive behavior)
    - Students identified as dropouts
    - Students in poor academic standing who are either severely behind on academic credits (more than one year) or have demonstrated a pattern of failing grades
    - Pregnant and/or parenting students
    - Adjudicated youth
4. Any school offering secondary instruction for academic credit used to fulfill Arizona State Board of Education graduation requirements (in part or in full) must offer a diploma of high school graduation.

Applying for Alternative School Status

To apply for alternative school status, an entity must submit a letter of application and supporting documentation to Achieve@azed.gov. The supporting documentation can include mission statements and any other information indicating that it is the school's sole mission to serve students listed in the definition above. The report card for a school applying for alternative status under AZ LEARNS must state in the "School Mission and Goals" section that it is an alternative school. Failure to specifically state this in the school report card will result in the application being denied.

If a school does not have current year AIMS data, alternative status will not be granted.

Schools already granted alternative status need not reapply. If granted, alternative status will apply until the school asks to have alternative status revoked or the school closes. Alternative status is not granted or applied retroactively. Applications that are submitted after the deadline will not be processed until the next accountability cycle in the spring of the following year.

Appendix A: Technical Information on Student Growth Percentiles

Quantile regression is used to calculate student growth percentiles. The methodology, introduced by Koenker and Bassett (1978), is ideally suited for estimating the family of conditional quantile functions (i.e., percentile curves). Growth percentiles are based upon the estimation of the conditional density associated with a student's score at time *t* using the student's prior scores at times 1, 2, . . . , *t*−1 as the conditioning variables. Given the conditional density for the student's score at time *t*, the growth percentile is defined as the percentile of the score within the time *t* conditional density (Betebenner, 2007).

For Arizona, this means that the estimation of the conditional density associated with a student's score in 2011 is based upon the student's prior scores back to 2006. The result is a percentile scale that reflects the likelihood of such an outcome given the student's prior achievement and a corresponding percentile rank for each student that demonstrates academic growth relative to a student's academic peer group.

Growth is calculated for all eligible students statewide using a free, downloadable statistical software package called 'R' (see http://www.r-project.org/ for more information on 'R'). Damian Betebenner of the *National Center for the Improvement of Educational Assessment* developed a SGP package for 'R' (quantreg) that calculates growth using statewide, matched student-level assessment results (McConnell, ACSA, 2011).